APPENDIX E
Marine Archaeological Assessment
MARINE ARCHAEOLOGICAL ASSESSMENT
CONCESSION STREET BRIDGE 
GRAND RIVER 
WATERMAIN REPAIR
CITY OF CAMBRIDGE (GALT) 
REGIONAL MUNICIPALITY OF WATERLOO

Prepared for:
Archaeological Research Associates
and
Ministry of Heritage, Sport, Tourism and Culture Industries

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License #: 2020-13
October 6, 2020
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Executive Summary

Archaeological Research Associates retained the services of Scarlett Janusas Archaeology Inc. (SJAI) on behalf of Stantec and the Regional Municipality of Waterloo to conduct a marine archaeological assessment of a proposed area of the Grand River in the former town of Galt (now City of Cambridge) where a new watermain will be installed by trenchless methods. This area is hereafter referred to as the “Study Area”.

The project encompasses background research and a property visit. No field work was conducted for the marine archaeological assessment. Archaeological Research Associates will conduct the associated land based archaeological assessment.

The Study Area consists of the Grand River located south of the Concession Street Bridge in the former town of Galt, now City of Cambridge. Permission to access the Study Area and to conduct all activities associated with the marine archaeological assessment was provided through Archaeological Research Associates.

The property inspection of the area was conducted on October 1, 2020 under good assessment weather conditions.

Based upon the marine archaeological assessment (background research and property inspection), the following is recommended:

- There are no archaeological concerns for this specific area of the Grand River; and,
- Compliance legislation must be adhered to in the event of discovery of deeply buried cultural material or features.
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## Project Personnel

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CONCESSION STREET BRIDGE
GRAND RIVER
WATERMAIN REPAIR
CITY OF CAMBRIDGE (GALT)
REGIONAL MUNICIPALITY OF WATERLOO
ORIGINAL REPORT

1.0 PROJECT CONTEXT

1.1 Development Context

Archaeological Research Associates (ARA) retained the services of Scarlett Janusas Archaeology Inc. (SJAI) on behalf of Stantec and the Regional Municipality of Waterloo to conduct a marine archaeological assessment of a proposed area of the Grand River in the former town of Galt (now City of Cambridge) where a new watermain will be installed by trenchless methods. This area is hereafter referred to as the “Study Area”.

The Study Area consists of the waters of the Grand River, located between Lots 9 and 10, Concession X, geographic township of North Dumfries, in the former City of Galt, now City of Cambridge (Figures 1 to 3) located south of the Concession Street Bridge.

The project encompasses background research and a property visit. No field work was conducted for the marine archaeological assessment. ARA will conduct the land based archaeological assessment.

Permission to access the Study Area and to conduct all activities associated with the marine archaeological assessment was provided through ARA.

1.2 Current Environment

The Study Area consists of the waters of the Grand River, located between Lots 9 and 10, Concession X, in the former City of Galt, now City of Cambridge. The Study Area is south of the Concession Street bridge (Image 1). The east side has a concrete retaining wall (Image 2), and the west side, gabion baskets (Image 3) to assist with erosion control. Vegetation is typical brush associated with river edges, although the banks have been reinforced for erosion control.
Figure 1: General Location of the Study Area
Figure 2: Marine Archaeological Assessment Area
Figure 3: Concept Plan
Image 1: Study Area facing south from Concession Street Bridge

Image 2: Concrete Retaining Wall on East Bank (facing E)
On the east side of the river are concrete stairs that lead down to a paved path located above the river bank which extends along the east bank southward (Image 4). The west side of the river is steep as well (Image 4) but more accessible than that of the east bank. The river itself appears muddy in nature, however, visibility was up to approximately one metre.

Image 4: Pathway on East Bank and Natural Vegetation on West Bank
1.2.1 Rationale for Fieldwork Strategy

Given that only background research was required for the Study Area, no field work was conducted. A property visit was, however, conducted on October 1, 2020 to confirm background research details and augment the research. The property visit consisted of examining the banks of the river, observing the river in this area, and photographing of same.

1.2.2 Dates of Fieldwork

The property inspection was conducted on October 1, 2020 under sunny skies and a high of 15 degrees Celsius.
2.0 FIELD METHODOLOGY AND RESULTS

2.1 Property Inspection

Property inspection was conducted by walking along the upper and in some cases lower banks of the Study Area, making observations of conditions and conducting photography. The east bank of the Study Area has been heavily modified. A large and very high retaining wall (approximately 3 – 4 metres in height) (Image 2) has been built along the top bank of the east side of the Grand River. The lower reaches has a small paved pathway elevated about 1.5 metres above the current height of the river waters. Between the pathway and the river itself is a small vegetated area. The east bank is steep except for a small bank immediately beside the river, but access to this bank is variable based on water levels. The west bank has been reinforced with gabion baskets (Image 3) and natural vegetation. It is also very steep, and there is no visible walkway close to the river’s edge, although there is a pathway on the upper bank.

Close to the Concession Street Bridge is a large metal portal (Image 5), which is most likely used during excessive rainfall to funnel waters into the river. There is a small pool (Image 6) that has formed from the waters that would come pouring out of this portal with some force. This is “natural” in so much as the waters have created this pool. A small concrete platform is located on the east side of the river (Figure 7). The platform sits at the water’s edge and some of it extends under the water (foundation), however the platform itself sits just above the current water level. Its’ purpose is unknown at this time, however, given that it appears to be a concrete and rebar construction, it is considered a modern element.

Image 5: Large Portal near Concession Street Bridge facing E

Image 6: Ponding Caused by Funneled Water Diversion facing W
Image 7: Concrete Platform on East Bank facing E
3.0 BACKGROUND RESEARCH

3.1 General Historic Background

The original name of the Grand River by Indigenous peoples is reportedly “Tintactuoa”. The river originates near Dundalk, Ontario and continues to flow south into Lake Erie. Its total length is about 290 kilometres (http://www.cangeoeducation.ca/resources/rivers_of_canada/grand_river/default.asp).

The river, as with most rivers, played an important role for Indigenous peoples both through prehistory and history. The river would have been used as a source of transportation for both local journeys and those further afield for trading purposes. The river would have also provided a source of many different types of food including fish and waterfowl, as well as various natural vegetation for foodstuffs.

Historically, six miles (10 kilometres) on either side of the Grand River, originating from its source in Dundalk to the mouth of the river in Lake Erie, was given to Six Nations for its part during the American Revolutionary War. These lands continue to be considered the Six Nations territorial lands (http://sixnations.ca/CommunityProfile.htm).

The Grand River was designated a Canadian Heritage River in 1994 (Chrs.ca/en/river/grand-river). The Grand River was designated "because of its harmony with human settlement around it" (http://www.cangeoeducation.ca/resources/rivers_of_canada/grand_river/default.asp).

3.2 Historical Background: Lots 9 & 10, Concession X

As with most waterways, activities on adjacent land holdings often played a part in the use of the river. The following is a brief overview of both sides of the river adjacent to the Study Area. It should be noted that lot and concession from Land Information Ontario, transferred to Google Earth maps, notes the east side of the river below the Concession Street Bridge as Lot 3 East of the Grand River, Concession X, and the west side as Lot 3 West of the Grand River, Concession 10. The Parsell map of 1881 clearly shows that the Grand River passes through Lots 9 and 10, Concession X and it is this mapping system that is used for the historical research.

The Study Area is located between two lots of the original survey of Dumfries Township of 1817 (the township being divided into North and South in 1852), that is, the north half of Lot 9 on the east side of the Grand River, and the north half of Lot 10 on the west side of the river. The divided possession of the latter is shown on the Tremaine map of 1861 (Figure 4) in the names of “Crombie”, adjacent to
Cedar Street, and “George Goodall”. Five residential-type properties fronting on Cedar Street between the river and an “Inn” at the corner of Cedar and West Main Street (now Grand Avenue South), are indicated. There is no bridge over the Grand River at this time linking Lot 10 with Lot 9.

The Pollock map of 1867 (Figure 5) shows but three lots fronting on Cedar Street between the river (now traversed by a bridge) and West Main Street. Lots 1 and 2 are in the name of William Osborne, and Lot 3 in that of John Kirkpatrick where several buildings are situated. A larger adjacent lot along the south boundary of Lots 1, 2, and 3 is shown in the name of Archibald Scott. Here, as in the case of Lot 3, a dwelling is indicated.

The names placed on Lot 10 on the maps of 1861 (Figure 4) and 1867 (Figure 5) do not appear, respectively, in the census of 1861 or 1871, except possible a John Kirkpatrick who is entered in the Galt census of 1871 as a “bailiff”, aged 55. Figure 6 illustrates the historic map of 1881 but does not provide any good detail of the area.

It appears that the north part of Lot 10, divided as it was into residential parcels, remained so into the twentieth century. This is evident in the aerial photograph of 1919 (Figure 7) and the Fire Insurance maps of 1929 (Figure 8 and 9).

Lot 9, on the east side of the river, bounded by Concession Street on the north, South Water Street on the west, and the Great Western Railway lands to the east, is shown on the Tremaine map (Figure 4) to have been variously subdivided – “A Elliot’s survey” fronting on Concession and abutting it to the south of the lot of “Mrs. S. Steward” and adjacent to it, south side, the holding of “Jared Swan”. The Pollock map of 1867 (Figure 5) indicates the boundaries of the property in the name of “Mrs. Ellen Kennedy”. Several buildings are positioned in her holding, as well as a number of trees, perhaps indicating an orchard. A narrow strip between South Water Street and the river bears the name of “Mr. E. Kennedy”, though this may be a misprint for “Mrs. Kennedy”. In any event, as in the case of Lot 10, none of the names associated with Lot 9 could be identified with certainty in the census of 1861 or 1871.

Although there is no reference to commercial or industrial activity on Lot 9 in the census of 1871, change was in the offing. Cant, Gourlay & Company established the “Galt Machine Works” on the north half of the lot in 1872 (no author 1882). A foundry and factory produced “wood working machinery” and by the 1880s it was also manufacturing looms (Evans 1884: 180). A subsidiary firm, the MacGregor, Gourlay & Fontaine Pin Company, operated at the same facility (ibid: 198). MacGregor was a principal in the parent company.

By the turn of the century, the senior firm was formally known as the MacGregor, Gourlay & Co., Ltd. It sustained a foundry, produced “iron-working machine tools”, and a pin factory reputed to be the largest in Canada. “Large as the establishment is”, noted a description in 1902, “additions are being built to it this summer, so
Figure 5: Pollock Map of 1867

Study Area and Environs

Scale: 2.5 chains = 165'
Figure 6: 1881 Parsell Map of Study Area
Figure 7: 1919 Aerial View of Study Area and Environs
Figure 8: 1929 Fire Insurance Map – East Side of Grand River
Figure 9: 1929 Fire Insurance Map – West Side of Grand River
great is the demand for the machines by this well-known establishment, and so cramped is the Company for room” (no author 1902:106).

The Company’s facility likely reached its maturity in the 1920s, by which time it had changed ownership. In 1929, on the eve of the Great Depression, the business was being carried on by the Canada Machinery Corporation. The Fire Insurance Map of that year shows that there stood on the present day site a large “machine shop” equipped with a “travelling crane”, presumably an overhead device used to move heavy castings and finished product.

The end of Canada Machinery is not known, though it is likely that the “machine shop” did not survive the decline of such manufacturing in Ontario during the last quarter of the 20th century.

3.3 The Grand River – Study Area

Of the Grand River between Lots 9 and 10, there is little or no evidence of an impact related to nearby, historic land activity, although its use as a dumping ground for refuse from the Machine Works cannot be ruled out. South Water Street and the line of the Galt, Preston & Hespeler Street (electric) Railway (from 1894) which ran along it, probably discouraged any encroachment.

The river itself had but minimal traffic, perhaps an occasional scow or recreational craft. No steamboats or steam tugs are recorded in the 19th century in the annual, post 1867, Steamboat Reports. Nor are any such craft recorded in the official Dunnville Shipping Register, the nearest port for the required registration of both sail and steam. Indeed, the shallow character of the river, the seasonal flux of a suitable depth, the construction of dams and railways, prevented the Grand River above Brantford as a navigable waterway for any large sailing/steam ships. This was apparent as early as 1831 when Galt founder, Absalom Shade, failed in a scheme to float small scows or barges, laden with flour and farm produce, downstream to Lake Erie (Evans 1884: xvii).

3.4 Flooding of the Grand River

Along various points along the wall of the stairway on the east side of the Grand River at the Concession Street bridge are flood line indicators displaying the level of the floods for various years (Images 8-9) of 1914, 1932, 1948 and 1974. There were additional floods between these periods of time, but these four years were highlighted along the retaining wall south of the Concession Street Bridge. Each flood was significant and had a direct impact on the Study Area. Many of the floods were caused by ice jams elsewhere along the river, which in some cases caused the waters to rise 15’ in just two days (https://www.grandriver.ca/en/our-watershed/resources/Documents/Water_History_1962Hydraulics.pdf). The flood of 1948 (Image 10) is taken of the Main Street Bridge in Galt, less than .6 km north of the Study Area. The 1974 flood of the same area now extends over the bridge itself in this
area (Image 11). The 1974 is commonly referred to, because of its extreme height and power, as the Grand River Flood.

**Image 8: Flood Levels in Study Area – 1974 and 1948**

**Image 9: Flood Levels in Study Area – 1932, 1914**
Image 10: 1948 Flood at Main Street Bridge facing N
(https://www.flickr.com/photos/grandriverconservation/8182492840)

Image 11: 1974 Flood at Main Street Bridge facing E
(http://vitacollections.ca/kpl-gsr/82904/data)
Given the strength of these floods, and the incredible damage caused, it is unlikely that any archaeological sites still remain in situ along the banks of the Grand River in the Study Area.
4.0 ANALYSIS AND CONCLUSIONS

The property inspection indicated that both banks of the Grand River have been modified to deal with continual flooding of the Grand River. These historic floods, certainly for 1948 and 1974, were extreme, powerful and damaging to existing infrastructure. There have been frequent floods of the Grand River, making it an unlikely area to establish any kind of docks, wharves, riverbank infrastructure, or habitation.

The adjacent lots on Concession 10, on either side of the river, historically show that this was accounted for by building at the top of the embankments of the river, rather than at the level of the river. Modern pathways along the lower embankment are subject to flooding when it happens.

The Study Area has low archaeological potential for any marine related archaeological resources, either prehistoric, Indigenous historic or Euro-Canadian historic. Flood waters would have eroded the banks taking with them any archaeological evidence that might have existed in these areas.
5.0 RECOMMENDATIONS

Based on the marine archaeological background research and property inspection, the following is recommended:

- There are no archaeological concerns for this specific area of the Grand River; and,
- Compliance legislation must be adhered to in the event of discovery of deeply buried cultural material or features.
6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

According to the 2011 Standards and Guidelines (Section 7.5.9) the following must be stated within this report:

This report is submitted to the Minister of Heritage, Sport, Tourism and Culture Industries as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Heritage, Sport, Tourism and Culture Industries, a letter will be issued by the Ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the Ontario Heritage Act for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the Ontario Heritage Act.

Should previously undocumented archaeological resources be discovered, they may be an archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.

The Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c. 33 requires that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the Ontario Heritage Act and may not be altered, or have artifacts removed from them, except by a person holding an archaeological license.
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